

Abstract

[0034] A module that includes both an “add-in”/”drop-out” pair of ports and a “drop-in”/”add-out” pair of ports comprises an arrangement of elements that combines an optical signal having a chosen wavelength with an optical signal applied at the “add-in” port, and outputs the combined signal at the “add-out port.” Concurrently, the module extracts an optical signal with the same wavelength from an optical signal applied at the “drop-in” port signal, yielding an optical signal at the “drop-out” port that is missing that same wavelength. When the amount of information that needs to be sent from a first network node to a second, remote, node, is greater than that which a single wavelength can handle, a plurality of the above-described modules are interconnected within the first node by optically coupling the “add” ports in a “daisy chain” fashion and the “drop” ports in a “daisy chain” fashion, with each module operating at a different wavelength.